



6AV6

TWIN DIODE—HIGH-MU TRIODE

7-PIN MINIATURE TYPE

6AV6

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 ± 10%	volts
Current	0.3	amp

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^o	
Triode Unit:			
Grid to plate	2	2	μμf
Grid to cathode and heater . . .	2.2	2.2	μμf
Plate to cathode and heater . . .	0.8	1.2	μμf
Diode—No. 2 plate to triode grid .	0.04 max.	0.04 max.	μμf

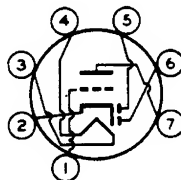
Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage	100	250	volts
Grid Voltage	-1	-2	volts
Amplification Factor	100	100	
Plate Resistance (Approx.)	0.08	0.0625	megohm
Transconductance	1250	1600	μmhos
Plate Current	0.5	1.2	ma

Mechanical:

Operating Position	Any
Maximum Overall Length	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) .	1-1/2" ± 3/32"
Diameter	0.650" to 0.750"
Dimensional Outline	See General Section
Bulb	T5-1/2
Base	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW	7BT

Pin 1—Triode Grid
Pin 2—Cathode
Pin 3—Heater
Pin 4—Heater



Pin 5—Diode Plate
No. 2
Pin 6—Diode Plate
No. 1
Pin 7—Triode Plate

TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	330 max.	volts
GRID VOLTAGE:		
Positive-bias value	0 max.	volts
PLATE DISSIPATION	0.55 max.	watt

← indicates a change.

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PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 200 max. volts
Heater positive with respect to cathode. 200[▲] max. volts

Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 25*
at front of this Section

DIODE UNITS — Two

→ Maximum Ratings, Design-Maximum Values:

PLATE CURRENT (For each diode) 1 max. ma

→ Characteristics:

Values are for Each Unit

Plate Current for plate volts = 10 2 ma

Diode Considerations:

Consideration of these units, including typical circuits and diode curves, is given at the front of this Section. Diode biasing of the triode unit of the 6AV6 is not suitable.

^o With external shield JEDEC No. 316 connected to cathode.

[▲] The dc component must not exceed 100 volts.

Curves for the triode unit of the 6AV6 are the
same as those shown for Type 12AX7

→ Indicates a change.